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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/055,844	01/23/2002	Takeshi Kai	KPO-108-A	7883

21828 7590 11/02/2004

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24101 NOVI ROAD  
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NOVI, MI 48375

EXAMINER
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CULBRETH, ERIC D

ART UNIT	PAPER NUMBER
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3616

DATE MAILED: 11/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/055,844

Applicant(s)

KAI ET AL.

Examiner

Eric D Culbreth

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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## **DETAILED ACTION**

### ***Drawings***

#### **INFORMATION ON HOW TO EFFECT DRAWING CHANGES**

##### **Replacement Drawing Sheets**

Drawing changes must be made by presenting replacement figures which incorporate the desired changes and which comply with 37 CFR 1.84. An explanation of the changes made must be presented either in the drawing amendments, or remarks, section of the amendment. Any replacement drawing sheet must be identified in the top margin as "Replacement Sheet" (37 CFR 1.121(d)) and include all of the figures appearing on the immediate prior version of the sheet, even though only one figure may be amended. The figure or figure number of the amended drawing(s) must not be labeled as "amended." If the changes to the drawing figure(s) are not accepted by the examiner, applicant will be notified of any required corrective action in the next Office action. No further drawing submission will be required, unless applicant is notified.

Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and centered within the top margin.

##### **Annotated Drawing Sheets**

A marked-up copy of any amended drawing figure, including annotations indicating the changes made, may be submitted or required by the examiner. The annotated drawing sheets must be clearly labeled as "Annotated Marked-up Drawings" and accompany the replacement sheets.

##### **Timing of Corrections**

Applicant is required to submit acceptable corrected drawings within the time period set in the Office action. See 37 CFR 1.85(a). Failure to take corrective action within the set period will result in ABANDONMENT of the application.

If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings **MUST** be filed within the **THREE-MONTH** shortened statutory period set for reply in the "Notice of Allowability." Extensions of time may **NOT** be obtained under the provisions of 37 CFR 1.136 for filing the corrected drawings after the mailing of a Notice of Allowability.

1. New drawings of Figures 4-6 and 18-19 are required because the drawings submitted 2/17/04 were not labeled "Replacement Sheet" in the top margin as required above. Otherwise, the changes in the drawings filed 2/17/04 are acceptable.

2. The drawings are objected to because in Figure 2 reference character "a" has no lead line. Noting applicant's remarks on page 13 that the reference character simply refers to the arrow and that the examiner has acknowledged the meaning of the character by his comments, Rule 37CFR 1.84(f) requires that reference characters should be connected by lines to the parts to which they refer; whether the examiner has acknowledged the meaning of the character is not germane to the rule. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the protrusion section pushed into the inner space prior to expansion such that the protrusion section is turned inside out (claims 5

and 24) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

#### ***Response to Amendment***

4. The amendment filed 7/19/04 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: The amendment to the amendment on page 11 of the specification beginning at line 13 is new matter because of the recitation that the acceleration

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sensor 15 is in indirect electrical communication with the inflator 2 via a control module (the original disclosure did not mention indirect electrical communication nor communication through a control module). Also, the showing of sensor 15 in Figure 4 is new matter (shape, location, connection to the airbag module at the bottom). To avoid the showing in Figure 4 being new matter, the paragraph on page 11, beginning at line 13 should be amended to recite that the sensor 15 is "schematically" shown, meaning for illustration purposes only.

Claims 2 and 21 include new matter when they recite that the protrusion section is semi-cylindrical.

Applicant is required to cancel the new matter in the reply to this Office Action.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 2-3, 12, 19 and 21-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 2 and 21, it is not accurate to the invention to recite the protrusion section as comprising a semi-cylindrical pipe shape (in applicant's Figures 5 and 7 the protrusion is not semi-cylindrical).

Claims 3 and 22 are contradictory when they recite at least one opening in a portion of the protrusion section connected with yet spaced away from the main section (how can it be connected yet spaced?).

In claim 12, and claim 19, there is no antecedent basis for "said predetermined portion" (i.e., claim 12 depends from claim 7, and the predetermined portion was recited in claim 8; claim 19 depends from claim 13, and the predetermined portion was recited in claim 15).

***Claim Rejections - 35 USC § 103***

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claims 1-3, 6-12 and 20-22 as best understood are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent 10-175,497 in view of Japanese Patent 49-116743 (both cited by applicant).

Japanese '497 discloses an air bag apparatus for shielding a vehicle occupant in the event of a side crash comprising an acceleration sensor that detects acceleration in a side direction larger than a predetermined value and generates a signal (page 3, paragraph [0020] and page 5, paragraph [0032] of the English translation submitted with the reference, where an inflator generates gas when an acceleration sensor detects a side collision, at which point an acceleration would be occurring in a side direction above a predetermined value), and an inflator 21 generating gas. The air bag is folded initially (in order to fit in the seat back in Figure 3) and expands with gas. Japanese '743 discloses a protrusion section 3 on a main section 2 of an air bag. The protrusion section 3 is attached to and extends outwardly away from a tip or top portion of the main section 2 such that inner spaces of the protrusion section and main section are connected. The protrusion section has at least one opening formed therein from which gas is

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spouted. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Japanese '497 to include a protrusion section with an exhaust opening as taught by Japanese '743 in order to relieve pressure as the occupant falls into the bag (claims 1 and 20).

Regarding claims 2 and 21, in the combination Japanese '743's protrusion section is pipe shaped and has openings at opposed ends (one opening to the atmosphere and one to the main section 2); as the recitations that the protrusion section is semi-cylindrical is inaccurate to the disclosure, the combination meets the positive limitations of the claims.

In regard to claims 3 and 22, as best understood in the combination Japanese '743's protrusion section 3 is narrower than the tip or top portion of the main section 2 and has at least one opening at its end opposite the main section 2 that is connected with the main section by the remainder of the protrusion section yet spaced away from the main section. Especially regarding claim 22, in the combination gas is expelled from the protrusion section opening in Japanese '743 in a direction substantially perpendicular to Japanese '743's substantially linear expansion direction (i.e., in the combination Japanese '743's bag expands laterally, and gas is expelled from section 3 vertically; although Japanese '743's bag 2 expands vertically to some extent, so does applicant's bag in Figure 5).

Japanese '497, the primary reference, shows in Figure 8 that the bag consists of two panels sewn all along their periphery, including along the lower portion with would contact a limb in Figure 1 (claim 6). A partition or limit section 40 is a formed by sewing a predetermined portion of the side panels together in Drawing 8 (claims 7-8), and the partition or sewn section can be a curved line or semi-circle (Figure 5) or circle (Figure 7) (claims 9-11); all the



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predetermined sewn portions determine an expansion direction of the air bag during expansion of the bag as functionally recited in that gas has to flow around them (claim 12).

9. Claims 4-5 and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese '497 in view of Japanese '743 as applied to claim 1 above, and further in view of Japanese Patent 8-268213 (of record, cited by applicant).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Japanese '497 and Japanese '743 above to include the protrusion section pushed into the main section's inner space prior to expansion such that the protrusion section is turned inside out as taught by Japanese '213 in Figures 2a and 4(a)-(d) in order to store the protrusion compactly before inflation of the bag. The examiner regrets the earlier indication of allowability of claims 5 and 24.

10. Claims 13-19 and 25 as best understood are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese '497 in view of Japanese Patent 10-338097 (of record, cited by applicant).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Japanese '497, who already teaches an acceleration sensor and inflator as noted above, in addition to partitions at 40 and an airbag that would initially be folded in Figure 3, to include the bag expanding with the gas substantially in parallel to a linear expansion direction as taught by Japanese '097's Figure 18 (i.e., the bag expands upwardly in a linear direction) in order to deploy the bag from an alternative location (Japanese '097 teaches that as

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an alternative to an angled bag in Drawing 3, which is similar to Japanese '497's angled bag, the bag may deploy upwardly in a linear fashion to protect the same areas of an occupant in a side crash) (claims 13 and 25). The features of claims 14-19 and 26-29 are taught by Japanese '497, as described in the rejection of claims 6-12 above.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric D Culbreth whose telephone number is 703/308-0360. The examiner can normally be reached on Monday-Thursday, 9:30-7:00 alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 703-308-2089. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Eric D. Culbreth  
Primary Examiner  
Art Unit 3616



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